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10/729,889	12/05/2003	Todd D. Wakefield	5133	9228

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EXAMINER

TIMBLIN, ROBERT M

ART UNIT	PAPER NUMBER
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2167

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	02/23/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/729,889

Applicant(s)

WAKEFIELD ET AL.

Examiner

Robert M. Timblin

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 19 November 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1, 4-18 and 21-34 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1, 4-18 and 21-34 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☐ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____.
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- ☐ Notice of Informal Patent Application
- ☐ Other: _____.

DETAILED ACTION

This office action corresponds to application 10/729,889 filed 12/5/2003.

Terminal Disclaimer

The terminal disclaimer filed on 11/19/2006 is objected to, as copending application 10/729,883 has not been identified on the submitted terminal disclaimer. Specifically, application 10/729,888 has been recorded twice. Application 10/729,883 was included in the nonstatutory obviousness-type double patenting rejection of the office action of 5/22/2006. Correction is kindly requested.

Response to Amendment

The Examiner acknowledges and has entered amendments made to the present application. Claims 2, 3, 19, and 20 have been cancelled while claims 33-34 have been newly added. Accordingly, claims 1, 4-18 and 21-34 have been newly added.

The Examiner would like to have Applicant acknowledge the following informalities found in the amended claims:

On page 4 of the claims, claim 6 has been repeated twice. On claim 17 on page 6, the limitation "using linguistic information to extract" should be underlined as to indicate this is a new claim limitation not present in prior versions of the claims. Corrections are respectfully requested.

In light of these minor informalities, the Examiner has examined the pending claims to further expedite prosecution.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 4-18 and 21-34 are rejected under 35 U.S.C. 102(b) as being anticipated by **Gaizauskas et al.** "Information Extraction: Beyond Document Retrieval" August 1998. ('**Gaizauskas**' hereinafter). In the following passages and figures, **Gaizauskas** teaches:

With respect to claim 1, a computer program product located to one or more storage media devices usable to perform integration of mixed format data, said computer program product comprising instructions executable by a computer to perform the functions of:

accessing a feed of data records (page 18; retrieving documents from collections, page 48; newsfeeds), said data records including both structured data and unstructured data (step b) of figure 1 on page 20);

the unstructured data of a particular data record including free text related to the structured data of that data record (figure 1, step b));

extracting relational facts from the free text (page 27, paragraph 3 and page 29), said extracting step being performed using linguistic information from the free text (beginning of page 19, figure 3, first full paragraph of page 47; linguistic analysis/theory);

producing a set of construed data from said unstructured data, each construed datum containing at least one relational fact (step d) of figure 1, page 21, at least steps 4-7 on page 34, and processing stages on page 36 and figure 3 on page 39 with description),

each construed datum being relatable to the structured data of the data record in which said free text was found (steps b and e of figure 1); and

integrating the construed data with the particular structured data to which the construed data relates (page 39 section 3.2.3 and second full paragraph of page 44).

With respect to claim 4, a computer program product according to claim 1, further comprising the step of applying caseframes while performing said extracting step (last paragraph of page 22, first paragraph of page 23, and figure 3 on page 39).

With respect to claim 5, a computer program product according to claim 1, wherein said instructions are further executable to perform the function of producing a new database containing the integrated data produced by said integrating (page 1, and page 50 section 5.1.3).

With respect to claim 6, a computer program product according to claim 1, wherein said data feed is a database, and wherein said instructions are further executable to perform the function of inserting the construed data into said database while performing said integrating step (introduction, first paragraph).

With respect to claim 7, a computer program product according to claim 1, wherein said instructions are further executable to perform the function of creating a new database containing the construed data (figure 1 on page 20 and section 5.1.3.).

With respect to claim 8, a computer program product according to claim 7, wherein said new database is a relational database which relates said relational facts to said structured data (page 52; conventional database and section 5.1.3.).

With respect to claim 9, a computer program product according to claim 8, wherein the instructions are further executable to produce a file containing the integrated data produced by said integrating (number 2 on page 29 and figure 2 on page 35).

With respect to claim 10, a computer program product according to claim 9, wherein the instructions are further executable to produce a file having a format selected from the group of XML, character separated values, spreadsheet formats and file-based database structures (figure 1 on page 20 and number 2 on page 29).

With respect to claim 11, a computer system including a computer program product according to claim 1, further comprising: a processing unit coupled to said one or more storage media devices, said processing unit being capable of executing said instructions; and an execution command unit, whereby operation of said instructions and said processing unit may be commanded or controlled (page 46, first full paragraph).

With respect to claim 12, a computer program product according to claim 1, wherein said instructions are further executable to combine like attributes for the extracted relational fact types produced in performing said extracting relational facts from the free text (figures 4-5 and accompanying descriptions).

With respect to claim 13, a computer program product according to claim 1, wherein said instructions are further executable to combine like relational fact types for the extracted relational facts produced in performing said extracting relational facts from the free text (first paragraph of 5.1.2).

With respect to claim 14, a computer program product according to claim 1, wherein said instructions provide relationships with domain roles applied in performing said extracting relational facts from the free text (page 22, last paragraph).

With respect to claim 15, a computer program product according to claim 1, wherein said instructions store the relational facts produced in performing said extracting relational facts from the free text (introduction, first paragraph).

With respect to claim 16, a computer program product according to claim 1, wherein the extracted relational facts produced in performing said extracting relational facts and the

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integrated data produced by the performance of said integrating the produced data includes reference information to the original free text (figure 3 and accompanying description).

With respect to claim 17, a computer program product located to one or more storage media devices usable to perform integration of mixed format data, said computer program product comprising instructions executable by a computer to perform the functions of:

accessing a database containing data records, at least some of the data records containing both structured and unstructured data, the unstructured data including free text (page 18; retrieving documents from collections),

using linguistic information to extract relational facts from the free text (beginning of page 19, first full paragraph of page 47; linguistic analysis/theory);

producing a set of construed data reflecting at least one relational fact conveyed in said free text, each construed datum containing at least one relational fact, each construed datum being further relatable to the structured data in the data record from which said free text was read (step d) of figure 1, page 21, at least steps 4-7 on page 34, and processing stages on page 36 and figure 3 on page 39);

integrating said construed data with the structured data of the data record to which said construed data relates, said integrating step retaining reference information to the original free text (page 39 section 3.2.3 and second full paragraph of page 44); and

constructing a library containing extracted attributes (figures 2 and 4).

With respect to claim 18, a method for integrating mixed format data, comprising the steps of:

accessing a database containing data records, at least some of the data records containing both structured and unstructured data, the unstructured data including free text (page 18; retrieving documents from collections);

producing a set of construed data reflecting at least one relational fact conveyed in free text, each construed datum containing at least one relational fact, each construed datum being further relatable to a data tuple of the structured data (step d) of figure 1, page 21, at least steps 4-7 on page 34, and processing stages on page 36 and figure 3 on page 39); and

integrating the produced data the structured data (page 39 section 3.2.3 and second full paragraph of page 44).

With respect to claim 21, a method according to claim 18, further comprising the step of applying caseframes to said free text (last paragraph of page 22, first paragraph of page 23, and figure 3 on page 39).

With respect to claim 22, a method according to claim 18, further comprising the step of producing a new database containing the integrated data produced by said integrating step (page 1, and page 50 section 5.1.3).

With respect to claim 23, a method according to claim 18, further comprising the step of inserting the produced data into said database (introduction, first paragraph).

With respect to claim 24, a method according to claim 18, further comprising the step of creating a new database (figure 1 on page 20 and section 5.1.3.).

With respect to claim 25. A method according to claim 24, wherein the new database is a relational database (page 52; conventional database and section 5.1.3.).

With respect to claim 26, a method according to claim 24, wherein new database includes at least one file containing the integrated data produced by said integrating step (number 2 on page 29 and figure 2 on page 35).

With respect to claim 27, a method according to claim 26, wherein the new database has a format selected from the group of XML, character separated values, spreadsheet formats and file-based database structures (figure 1 on page 20 and number 2 on page 29).

With respect to claim 28, a method according to claim 18, further comprising the step of combining like attributes for the extracted relational facts produced in performing said extracting relational facts from the free text (figures 4-5 and accompanying descriptions).

With respect to claim 29, a method according to claim 18, further comprising the step of combining like relation types for the extracted relational facts produced in performing said extracting relational facts from the free text (introduction, first paragraph).

With respect to claim 30, a method according to claim 18, wherein domain roles are applied in said step of extracting relational facts from the free text (introduction, first paragraph).

With respect to claim 31, a method according to claim 18, further comprising the step of storing the relational facts produced in performing said extracting relational facts from the free text (page 22, last paragraph).

With respect to claim 32, a method according to claim 18, wherein the extracted relational facts produced in performing said extracting relational facts and the integrated data produced by the performance of said integrating the produced data includes reference information to the original free text (figure 3 and accompanying description).

With respect to claim 33, a computer program product according to claim 1, wherein said instructions are further executable to replace like or related attributes for relational facts with a common canonical representation based on those like or related attributes (first paragraph of page 19, first paragraph of page 27, and page 30).

With respect to claim 34, a computer program product according to claim 1, wherein said instructions are further executable to replace like or related relation fact types with a common canonical representation.

Response to Arguments

Applicant's arguments with respect to claim 1 have been considered but are moot in view of the new ground(s) of rejection.

The Applicant argues on pages 12-13 that the Gaizauskas reference teaches accessing ONLY unstructured data as opposed to the presently claimed data records containing BOTH structured and unstructured data. The Examiner respectfully disagrees for specifically the following reason:

As presented in at least figure 1 on page 20, Gaizauskas teaches in step a) a query for IR (information retrieval). That is, a query for retrieving relevant documents from a collection of documents. As an example result, step b) teaches a retrieved text. From the retrieved text, it can be seen that structured text denoted by tags <DOCNO>, <HL>, <DD>, and <SO> and unstructured text in between tags <TXT> and </TXT> are both contained within the same data record (in this case, the retrieved text of step b)). Therefore the Examiner respectfully submits that Gaizauskas teaches said data records including both structured and unstructured data.

The Applicant further argues on page 12 that the cited Gaizauskas reference does not teach producing relational facts from unstructured data and then relate them to structured data found in the same data record as the unstructured data. The Examiner respectfully disagrees because Gaizauskas teaches this limitation in respect to claims 1, 17 and 18 above. Gaizauskas teaches at least with reference to figure 3 of deriving structural relations in a sentence.

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Lastly, the Applicant argues that Gaizauskas does not disclose using linguistic information. The Examiner respectfully disagrees as this limitation is taught by Gaizauskas (see rejection of claims 1, 17 and 18 above). Therein Gaizauskas uses linguistic theory to analyze text. Figure 3 further represents use of linguistics (i.e. analyzing text).

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Conclusion

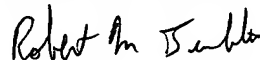
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Robert M. Timblin whose telephone number is 571-272-5627. The examiner can normally be reached on M-F 8:00-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John R. Cottingham can be reached on 571-272-7079. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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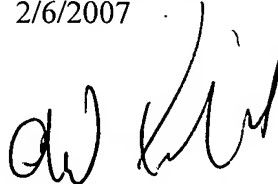
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Robert M. Timblin



Patent Examiner AU 2167

2/6/2007

**ALFORD KINDRED
PRIMARY EXAMINER**